

United States Government

Department of Energy

# memorandum

DATE: September 22, 2004

REPLY TO  
ATTN OF: Office of Science

SUBJECT: Request to Conduct a Baseline Readiness Review of the B Physics at the Tevatron project

TO: Mr. Daniel Lehman, Director, Major Systems Assessment, SC-81

The Department of Energy (DOE) Office of High Energy Physics (OHEP) requests that a baseline readiness review for the B Physics at the Tevatron (BTeV) Project be conducted on October 26-28, 2004 at Fermi National Accelerator Laboratory. The purpose of this review is to assess the readiness of the project to establish technical, cost, schedule and management baselines, which are needed for Critical Decision 2 (Approval of Performance Baseline).

In addition, OHEP is planning to seek CD-3a (Approve Limited Construction) so that BTeV may begin long lead procurements and a limited set of other construction activities that are needed to maintain the proposed schedule with adequate contingency. Please review the necessity of and project's readiness to carry out these activities.

BTeV is an experiment proposed to be run at the Tevatron after the completion of Run II. It is a technically aggressive experiment that hopes to utilize recently developed technology to enhance its physics capability. It will have a competitor in the LHC-B experiment, so it is important that BTeV can meet its planned schedule. It will be the largest HEP fabrication project for the next several years. All of these points reinforce the need for a high quality technical, cost, schedule, and management review.

In performance of a general assessment of progress, current status, and the identification of potential issues, the committee should address the following specific items:

1. Technical Scope: Review the technical scope in order to assure that the proposed design and associated implementation approach satisfies the performance requirements.
2. Cost Estimates: Is the cost estimate consistent with the plan to deliver the technical scope with the stated performance? Is the contingency adequate for the risk?
3. Schedule: Is the proposed schedule reasonable and appropriate in view of the technical tasks and proposed funding profiles? Have the critical paths been identified?
4. Management: Evaluate the management structure as to its adequacy to deliver the proposed technical scope within specifications, budget, and schedule.
5. Limited construction: Are the requested long-lead procurements and other construction activities scheduled for FY 2005 necessary to achieve the stated schedule? Have Fermilab and the project done the necessary preparations to execute these activities during FY 2005?
6. Is the documentation required by DOE Order 413.3 for CD-2 and CD-3a complete?

Michael Procario is the program manager for the BTeV Project in this office and will serve as the OHEP contact person for the review.

We appreciate your assistance in this matter. As you know, these reviews play an important role in our program. I look forward to receiving your Committee's report.

You are asked to submit a formal report to OHEP by December 15, 2004.

/signed/

Robin Staffin  
Associate Director  
Office of High Energy Physics